Frick®
BY JOHNSON CONTROLS

Form 100.200-SPL (MAR 2014)
SERVICE PARTS LIST
File: SERVICE MANUAL - Section 100
Replaces: 100.200-SPL (JAN 2014)
Dist: 3, 3a, 3b, 3c

VYPER™

VARIABLE SPEED DRIVE

MODELS: 305/254 HP & 437/362HP

Please check www.jci.com/frick for the latest version of this publication.

HOW TO USE SERVICE PARTS LIST

This Service Parts List is for Vyper™ Variable Speed Drive, 305/254 HP and 437/362 HP Models. Units built with special options, modifications, or conversions are not taken into consideration.

This Service Parts List provides identification for detail parts by Figure and Index Number, Part Number and Description. To determine correct replacement item, locate item on Figure 1, 2, etc., note Index number, refer to corresponding Index number in parts list for part number and description. Quantity per assembly is located in QTY. column. Unit of measure is always "each" unless specified otherwise in Quantity column. When Ref. is in QTY. column, this means that the Item Number is for information only and is not necessarily a service replacement part. Contact Baltimore Parts Center for more information. The REV. (Revision) column indicates the engineering drawing "level" of the parts.

The Numerical Parts List can be used to locate a specific item in the Service Parts List. Look for the part by Part Number and it will refer you to the Figure and Index Number where it is located.

Abbreviations found in this manual include:

VSD	Variable Speed Drive	Ref.	Reference
SCR	Silicon-controlled Rectifier	VAC	Volts Alternating Current
kVA	Kilovolt-Ampere	kA	Kilo-Ampere
IGBT	Insulated Gate Bipolar Transistor	DCCT	DC Current Transducer (Transformer)
IC	Integrated Circuit	Hz	Hertz

NOTE: PLEASE PROVIDE ORDER NUMBER, UNIT MODEL NUMBER, AND UNIT SERIAL NUMBER WHEN REQUESTING A QUOTATION OR PLACING AN ORDER. FAILURE TO INCLUDE THIS INFORMATION MAY DELAY PROCESSING OF YOUR REQUEST.

TABLE OF CONTENTS

HOW TO USE SERVICE PARTS LIST 2

Table 1. FRICK® 305HP-460V-60Hz / 254HP-380V-50Hz (Current Design) 3
Table 2. Optional Harmonic Filter 305HP / 254HP (Current Design) 5
Table 3. FRICK® 437HP-460V-60Hz / 362HP-380V-50Hz (Current Design) 6
Table 4. Optional Harmonic Filter 437HP / 362HP (Current Design) 8

Figure 1. Cabinet, Left Side, 305/254 HP, Typical. 10
Figure 2. Cabinet, Left Side, 305/254 HP, Typical. 11
Figure 3. Cabinet, Left/Front Center with Filter Trap Resistor Detail, 305/254 HP, Typical. 12
Figure 4. Cabinet, Right/Front Side with Detail, 305/254 HP, Typical. 13

Figure 5. Door, Inside Right, 305/254 HP & 503/362 HP, Typical. 14
Figure 6. Oil Pump & Blower Motor - Starting Contactors, Overloads & Auxiliary Contact. 14

Figure 7. Cabinet, Left/Front Side, 437/362 HP, Typical. 15
Figure 8. Cabinet, Left/Front Side with Filter Trap Resistor Detail, 437/362 HP, Typical. 16
Figure 9. Cabinet, Upper Right Side, 437/362 HP, Typical. 17
Figure 10. Vyper Power Unit Detail, 437/362 HP. 18
Figure 11. Vyper Harmonic Filter Power Unit Detail, 437/362 HP. 19

RECOMMENDED SPARE PARTS - 305/254 HP (CURRENT DESIGN) 20
RECOMMENDED SPARE PARTS - 437/362 HP (CURRENT DESIGN) 21

NUMERICAL PARTS LIST 22

Table 1. FRICK® 305HP-460V-60Hz / 254HP-380V-50Hz

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
1	2	025-41692-000	Inductor, AC Line	1	
2	4	031-01624-000	Board, Bus Isolator	1	
3	4	371-03710-001	Kit, Bus Plate	1	
4	2	224-30987-000	Circuit Breaker (Pre-06/2006)	1	
4	2	224-35428-000	Circuit Breaker (Current)	1	
5	1	025-31499-000	Control Transformer, 120 VAC, 60 Hz, 3 kVA	1	
5	1	025-32983-000	Control Transformer, 120 VAC, 50 Hz, 3 kVA	1	
9	1	025-35172-000	Fuse Holder, 2 Pole	2	
10	1	025-35915-000	Fuse Holder, 3 Pole	1	
11	1	025-25515-000	Fuse, 7 Amp Cartridge	3	
12	1	025-27971-000	Fuse, 10 Amp Cartridge	1	
13	1	025-25584-000	Fuse, 15 Amp Cartridge	2	
14	1	025-28967-000	Fuse, 20 Amp Cartridge	1	
15	4	371-03709-001	Rectifiers, Input (1 SCR, 2 SCR, 3 SCR)	3	
16	3	025-35953-000	Resistor, Snubber, VSD Output (1)	6	
17	3	025-32557-000	Fan, Internal Cabinet	2	
18	3	026-37908-000	Coil, Internal Cooling	1	
*	-	371-03712-342	Assembly, Fan and Coil, 60 Hz	1	
*	-	371-03715-342	Assembly, Fan and Coil, 50 Hz	1	
19	3	531-01672-001	Transformer, Output Current	3	
20	4	371-05143-001	Kit, Chill Plate, Power Module	1	
*	-	571-01484-212	Temperature Sensor – Supplied on Chill Plate With the SCR/Diode Modules (As Separate Item)	1	
21	4	024-30441-000	Relay, Control Fan / Pump	1	
22	4	031-02060-001	Board, SCR Trigger, 60 Hz	1	
22	4	031-02060-002	Board, SCR Trigger, 50 Hz	1	
24	4	025-27911-000	Transformer, 24 VAC, Class II	1	
25	4	025-35157-000	Resistor, VSD DC Balancing (1)	2	
26	5	331-02506-604	Board, VSD Logic (with Software)	1	
*	-	371-05193-003	Board, VSD Logic, Upgrade (From VSD Logic with FIB Board) (2)	1	
27	4	371-03708-001	Kit, VSD Power Module (3)	1	
*	-	371-02769-402	Kit, VSD Power Unit, Frick® NEMA-4 (4)	1	
62	4	025-35972-000	Capacitor, Bus Snubber	3	
63	3	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	
63	4	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	
65	4	331-02556-001	Snubber Module (As Applied to the SCR/Diode Module)	1	

Continued on next page

Table 1. Continued - FRICK® 305HP-460V-60Hz / 254HP-380V-50Hz

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
66	3	025-35188-000	Capacitor, Snubber, VSD Output	3	
67	6a	024-30992-000	Contactor, 3 Pole, 9 Amp (Oil Pump/Blower Motor)	2	
68	6a	024-30991-000	Overload, Oil Pump Starter	1	
69	6a	024-33176-000	Auxiliary Contact, Blower Motor	1	
70	6a	024-33166-000	Overload, Blower Motor Starter	1	
*	-	026-33890-000	Coolant Pump	1	
*	-	013-02987-000	Running Coolant (Inhibitor), 1 Gal.	2	
*	-	371-03712-361	Reservoir, Coolant, 3" PVC with Fill Plug (Pre-06/2007)	1	
*	-	371-02767-361	Reservoir, Coolant, 3" PVC with Fill Plug (Current) (5)	1	
*	-	639A0151G03	Assembly, Sensor, Coolant Temperature (Sensor & Well) (6)	1	
*	-	639A0151H01	Sensor, Coolant Temperature (Sensor Only) (6)	1	
*	-	026-37572-000	Heat Exchanger, Shell and Tube	1	
*	-	371-03716-001	Gaskets, Head, Shell & Tube Heat Exchanger	2	
*	-	025-40385-000	Valve, Cooling, 2-Way Electronic, 1 1/2" (Valve Only)	1	
*	-	025-42172-000	Valve, Cooling, 3-Way Electronic, 1 1/2" (Valve Only)	1	
*	-	025-40386-000	Valve Actuator, Cooling, Electronic	1	
*	-	371-05486-001	Kit, Cooling Valve, 2-Way to 3-Way	1	
*	-	375-22732-000	Kit, Motor Snubber (Remote Mount Units Only)	1	

* Indicates items that are NOT shown in figures.

1. Requires (1) Silicon Thermal Pad 028-15299-000 per piece ordered.

2. Vypers built before February 2008 used a Frick Interface Board for serial communications. This board is obsolete and is no longer needed with the current VSD logic board. If the VSD logic board is being replaced, kit 371-05193-003 is recommended.

3. VSD Power Module Kit includes IGBT, Gate Driver Board, O-Rings, O-Ring Lubricant and 2 gallons of coolant.

4. VSD Power Unit Kit includes 2 gallons of coolant, and items 3, 15, 20, 25, 27, 62, 63 and 65 of the Power Drive Unit in Figure 4.

5. Used with two-way mixing valve cooling circuit prior to June 2007.

6. The temperature sensor (sensor only) and temperature sensor assembly (with well) are the same parts used on the Frick screw compressor packages.

Table 2. Optional Harmonic Filter 305HP / 254HP

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
2	4	031-01624-000	Board, Bus Isolator	1	
3	4	371-03710-001	Kit, Bus Plate	1	
20	4	071-02769-309	Kit, Chill Plate, Power Module	1	
30	4	025-32582-000	Transducer, Direct Current, 200 Amp (Transducer Only)	2	
*	-	371-02767-352	Assembly, DCCT (2 Transducers & Bracket)	Ref.	
*	-	571-02768-271	DCCT #1 Cable (Cable Between Filter Logic Board & DCCT)	1	
*	-	571-02768-272	DCCT #2 Cable (Cable Between Filter Logic Board & DCCT)	1	
31	4	025-35955-000	Resistor, Filter DC Balancing (1)	2	
32	2	025-35177-000	Inductor, Filter	1	
33	1	024-30984-000	Contactor, Filter Main With Compression Lugs (Pre-06/2006)(2)	1	
33	1	024-35434-000	Contactor, Filter Main Use With Ring Tong Lugs (Current) (2)	1	
34	2	025-32581-000	Fuse, Filter Input, 150 Amp, 500 Volt	3	
35	5	331-02932-631	Kit, Filter Logic Board (3)	1	
36	4	371-03707-001	Kit, Filter Power Module (4)	1	
*	-	371-02768-402	Kit, Filter Power Unit, Frick® NEMA-4 (5)	1	
37	1	024-30985-000	Contactor, Filter Pre-Charge	1	
38	1	025-32502-000	Resistor, Filter Pre-Charge	3	
39	3	371-03711-001	Assembly, Filter Trap	1	
40	1	531-01672-001	Transformer, Input Current (Transformer Only)	2	
*	-	371-02767-347	Assembly, Input Current Transformer (2 Transformers & Brkt)	Ref.	
41	4	031-02022-000	Board, Line Isolator	1	
42	5	031-01658-000	Ribbon Cable, 16 Conductor - VSD Logic to Filter Logic Board	1	
56	5	031-01633-006	IC Chip, U42, 60Hz	1	
56	5	031-01633-007	IC Chip, U42, 50Hz	1	
57	5	031-02933-003	IC Chip, 112 (Included with Filter Logic Board Kit)	1	
62	4	025-42247-000	Capacitor, Bus Snubber	3	
63	4	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	
64	3	371-02768-355	Kit, Filter Trap Resistor (Trap Resistors Only)	1	
*	-	371-03717-011	Filter Upgrade, 60 Hz, 305 Hp	1	
*	-	371-03717-012	Filter Upgrade, 50 Hz, 254 Hp	1	

* Indicates items that are NOT shown in figures.

1. Requires (1) Silicon Thermal Pad 028-15299-000 per piece ordered.

2. The harmonic filter main contactor changed styles in June 2006. The previous contactor style used compression fittings, and as of June 2013 the previous contactor style is still available as a repair part. Current production uses a contactor that accepts ring tong lugs, which improves the installation of a retrofit harmonic filter.

3. The filter logic board kit does not include the U42 chip. This chip can be transferred from the old board to the new one. If there is a concern that the old board had a power supply problem, then a new U42 chip should be ordered. Be sure to order the correct chip for the line frequency for the application, 60Hz or 50Hz. The kit contains (1) U112 chip. Use chip 031-02933-003.

4. Filter Power Module Kit includes IGBT, Gate Driver Board, and 2 gallons of coolant.

5. Filter Power Unit Kit includes 2 gallons of coolant, and items 3, 20, 31, 36, 62 and 63 of the Filter Power Unit in Figure 4.

Table 3. FRICK® 437HP-460V-60Hz / 362HP-380V-50Hz

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
1	7	025-41693-000	Inductor, AC Line	1	
2	9	031-01624-000	Board, Bus Isolator	1	
3	10	371-04163-001	Kit, Bus Plate	1	
4	7	224-34025-000	Circuit Breaker, 600 Amp, 100 kA Rating	1	
5	7	025-31499-000	Control Transformer, 120 VAC, 60 Hz, 3 kVA	1	
5	7	025-32983-000	Control Transformer, 120 VAC, 50 Hz, 3 kVA	1	
9	1	025-38196-000	Fuse Holder, 2 Pole	2	
10	1	025-34185-000	Fuse Holder, 3 Pole	1	
11	1	025-35905-000	Fuse, 10 Amp Cartridge	3	
12	1	025-35905-000	Fuse, 10 Amp Cartridge	1	
13	1	025-35907-000	Fuse, 15 Amp Cartridge	2	
14	1	025-35908-000	Fuse, 20 Amp Cartridge	1	
15	10	371-04162-001	Rectifiers, Input (1 SCR, 2 SCR, 3 SCR)	3	
16	9	025-35953-000	Resistor, Snubber, VSD Output (1)	6	
17	3	025-32557-000	Fan, Internal Cabinet	1	
18	3	026-40672-000	Coil, Internal Cooling	1	
*	-	371-03791-342	Assembly, Fan and Coil, 60Hz	1	
*	-	371-03791-343	Assembly, Fan and Coil, 50Hz	1	
19	8	025-21173-003	Transformer, Output Current	3	
20	10	071-03787-309	Kit, Chill Plate, Power Module	1	
*	-	571-01484-212	Temperature Sensor - Supplied on Chill Plate With the SCR/Diode Modules (As Separate Item)	1	
21	9	024-30441-000	Relay, Control Fan / Pump	1	
22	9	031-02060-001	Board, SCR Trigger, 60 Hz	1	
22	9	031-02060-002	Board, SCR Trigger, 50 Hz	1	
24	9	025-27911-000	Transformer, 24 VAC, Class II	1	
25	10	025-35157-000	Resistor, VSD DC Balancing (1)	2	
26	5	331-02506-604	Board, VSD Logic (with Software)	1	
*	-	371-05193-003	Board, VSD Logic, Upgrade (2) (From VSD Logic with FIB Board)	1	
27	10	371-04164-001	Kit, VSD Power Module (3)	1	
*	-	371-03787-402	Kit, VSD Power Unit, Frick® NEMA-4 (4)	1	
60	8	031-02453-000	Board, Voltage Transient	1	
61	8	025-38523-000	Fuses, Voltage Transient Board	3	
*	-	331-02453-602	Kit, Transient Board & Fuses	1	
62	10	025-35972-000	Capacitor, Bus Snubber	3	
63	9	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	
63	10	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	

Continued on next page

Table 3. Continued - FRICK® 437HP-460V-60Hz / 362HP-380V-50Hz

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
65	10	331-02556-001	Snubber Module (As Applied to the SCR/Diode Module)	1	
66	9	025-35188-000	Capacitor, Snubber, VSD Output	3	
67	6b	024-30992-000	Contactor, 3 Pole, 9 Amp (Oil Pump/Blower Motor)	2	
68	6b	024-30991-000	Overload, Oil Pump Starter	1	
69	6b	024-33176-000	Auxiliary Contact, Blower Motor	1	
70	6b	024-33166-000	Overload, Blower Motor Starter	1	
*	-	026-33890-000	Coolant Pump	1	
*	-	013-02987-000	Running Coolant (Inhibitor), 1 Gal.	2	
*	-	371-03789-361	Reservoir, Coolant, 3" PVC with Fill Plug (Pre-09/2007) (5)	1	
*	-	371-03791-361	Reservoir, Coolant, 3" PVC with Fill Plug (Current)	1	
*	-	639A0151G03	Assembly, Sensor, Coolant Temperature (Sensor & Well) (6)	1	
*	-	639A0151H01	Sensor, Coolant Temperature (Sensor Only) (6)	1	
*	-	026-37572-000	Heat Exchanger, Shell and Tube	1	
*	-	371-03716-001	Gaskets, Head, Shell & Tube Heat Exchanger	2	
*	-	025-40385-000	Valve, Cooling, 2-Way Electronic, 1 1/2" (Valve Only)	1	
*	-	025-42172-000	Valve, Cooling, 3-Way Electronic, 1 1/2" (Valve Only)	1	
*	-	025-40386-000	Valve Actuator, Cooling, Electronic	1	
*	-	371-05486-002	Kit, Cooling Valve, 2-Way to 3-Way	1	
*	-	375-22732-000	Kit, Motor Snubber (Remote Mount Units Only)	1	

* Indicates items that are NOT shown in figures.

1. Requires (1) Silicon Thermal Pad 028-15299-000 per piece ordered.

2. Vypers built before February 2008 used a Frick Interface Board for serial communications. This board is obsolete and is no longer needed with the current VSD logic board. If the VSD logic board is being replaced, kit 371-05193-003 is recommended.

3. VSD Power Module Kit includes IGBT, Gate Driver Board and 2 gallons of coolant.

4. VSD Power Unit Kit includes 2 gallons of coolant and all callouts shown on Figure 10 (Items 3, 15, 20, 25, 27, 62, 63 and 65).

5. Used with two-way mixing valve cooling circuit prior to September 2007.

6. The temperature sensor (sensor only) and temperature sensor assembly (with well) are the same parts used on the Frick screw compressor packages.

Table 4. Optional Harmonic Filter 437HP / 362HP

INDEX	FIG.	PART NUMBER	DESCRIPTION	QTY.	REV.
2	9	031-01624-000	Board, Bus Isolator	1	
3	11	371-03710-001	Kit, Bus Plate	1	
20	11	071-02769-309	Kit, Chill Plate, Power Module	1	
30	8	025-30994-000	Transducer, Direct Current, 300 Amp (Transducer Only)	2	
31	11	025-35955-000	Resistor, Filter DC Balancing (1)	2	
32	8	025-38135-000	Inductor, Filter	1	
33	7	024-34028-000	Contactor, Filter Main With Compression Lugs (Pre-06/2006)(2)	1	
33	7	024-35433-000	Contactor, Filter Main Use With Ring Tong Lugs (Current) (2)	1	
34	8	025-30992-000	Fuse, Filter Input	3	
35	5	331-02932-642	Kit, Filter Logic Board (3)	1	
36	11	371-04165-001	Kit, Filter Power Module (4)	1	
*	-	371-03788-402	Kit, Filter Power Unit, Frick® NEMA-4 (5)	1	
37	7	024-30985-000	Contactor, Filter Pre-Charge	1	
38	7	025-38197-000	Resistor, Filter Pre-Charge	3	
39	8	371-03788-349	Assembly, Filter Trap	1	
40	7	531-01660-001	Transformer, Input Current (Transformer Only)	2	
41	9	031-02022-000	Board, Line Isolator	1	
42	5	031-01658-000	Ribbon Cable, 16 Conductor - VSD Logic to Filter Logic Board	1	
56	5	031-01633-006	IC Chip, U42, 60Hz	1	
56	5	031-01633-007	IC Chip, U42, 50Hz	1	
57	5	031-02933-003	IC Chip, U112 (Included with Filter logic Board Kit)	1	
62	11	025-42247-000	Capacitor, Bus Snubber	3	
63	11	028-15299-000	Resistor Pad, Silicon Thermal	Ref.	
64	8	371-02768-355	Kit, Filter Trap Resistor (Trap Resistors Only)	1	
*	-	371-04167-011	Filter Upgrade, 60 Hz, 437 Hp	1	
*	-	371-04167-012	Filter Upgrade, 50 Hz, 362 Hp	1	

* Indicates items that are NOT shown in figures.

1. Requires (1) Silicon Thermal Pad 028-15299-000 per piece ordered.

2. The harmonic filter main contactor changed styles in June 2006. The previous contactor style used compression fittings, and as of June 2013 the previous contactor style is still available as a repair part. Current production uses a contactor that accepts ring tong lugs, which improves the installation of a retrofit harmonic filter.

3. The filter logic board kit does not include the U42 chip. This chip can be transferred from the old board to the new one. If there is a concern that the old board had a power supply problem, then a new U42 chip should be ordered. Be sure to order the correct chip for the line frequency for the application, 60Hz or 50Hz. The kit contains (1) U112 chip.
Use chip 031-02933-003.

4. Filter Power Module Kit includes IGBT, Gate Driver Board and 2 gallons of coolant.

5. Filter Power Unit Kit includes 2 gallons of coolant, and all callouts shown on Figure 11 (Items 3, 20, 31, 36, 62 and 63).

This page left blank intentionally.

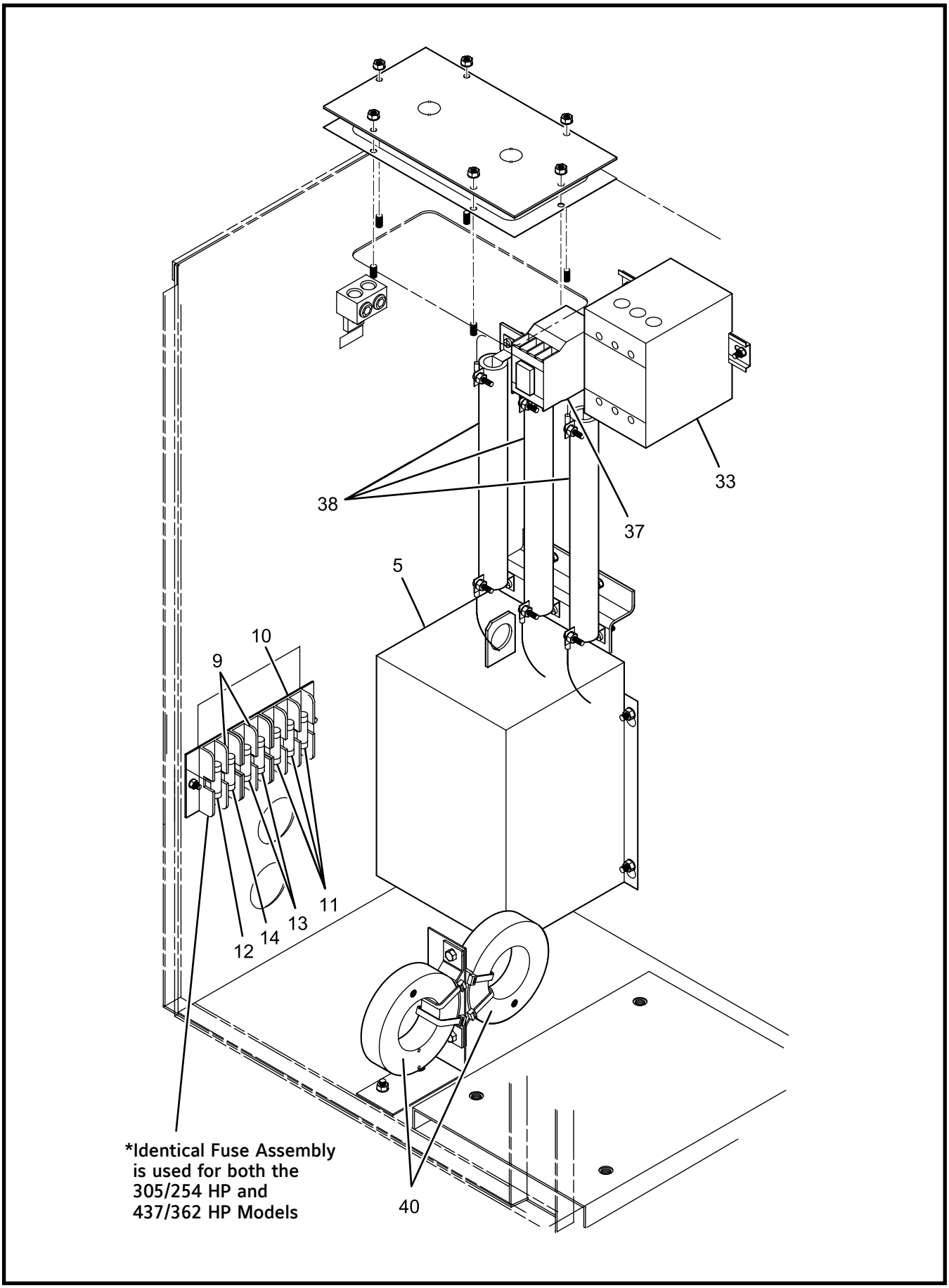

Figure 1. Cabinet, Left Side, 305/254 HP, Typical.

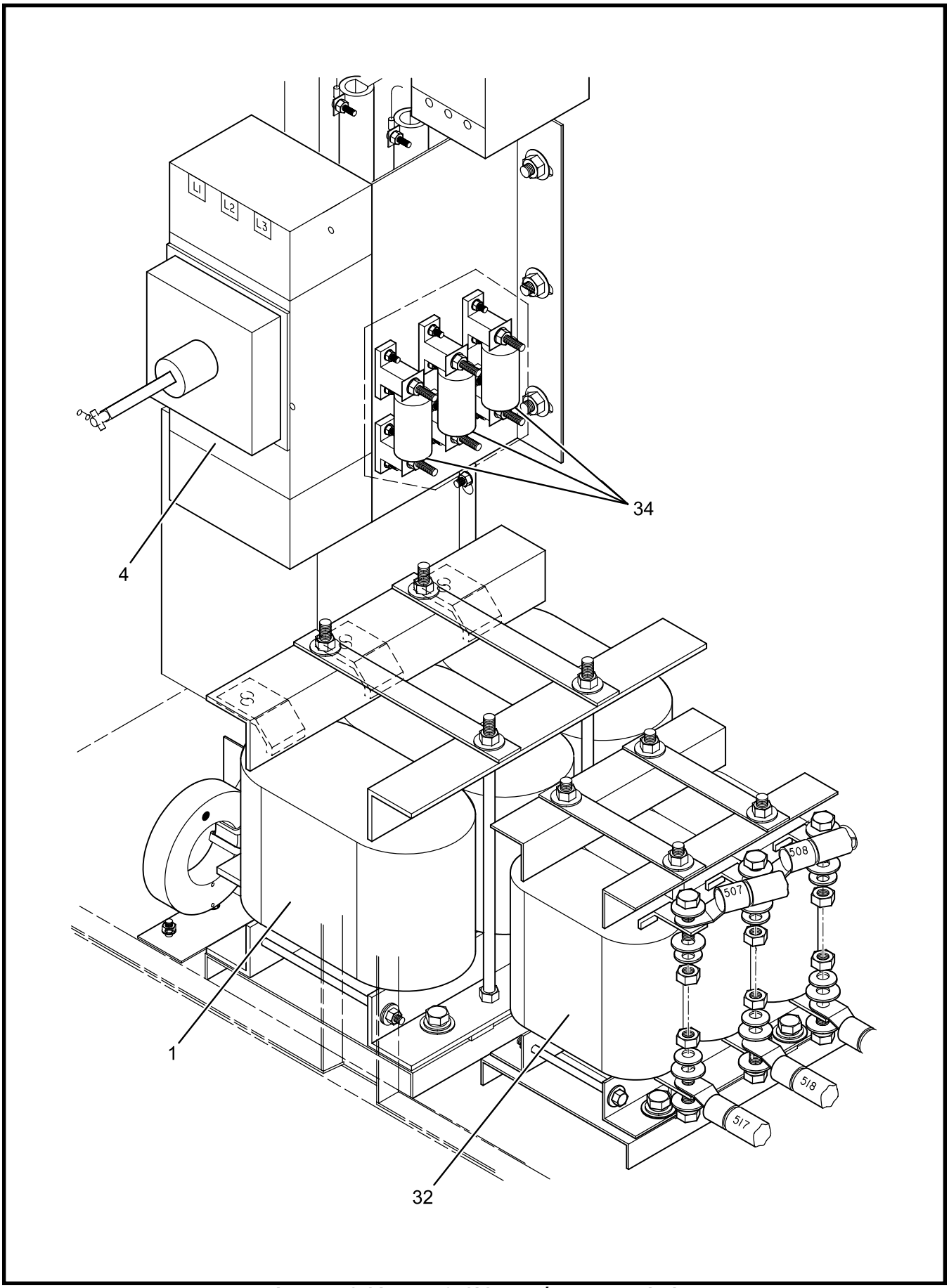

Figure 2. Cabinet, Left Side, 305/254 HP, Typical.

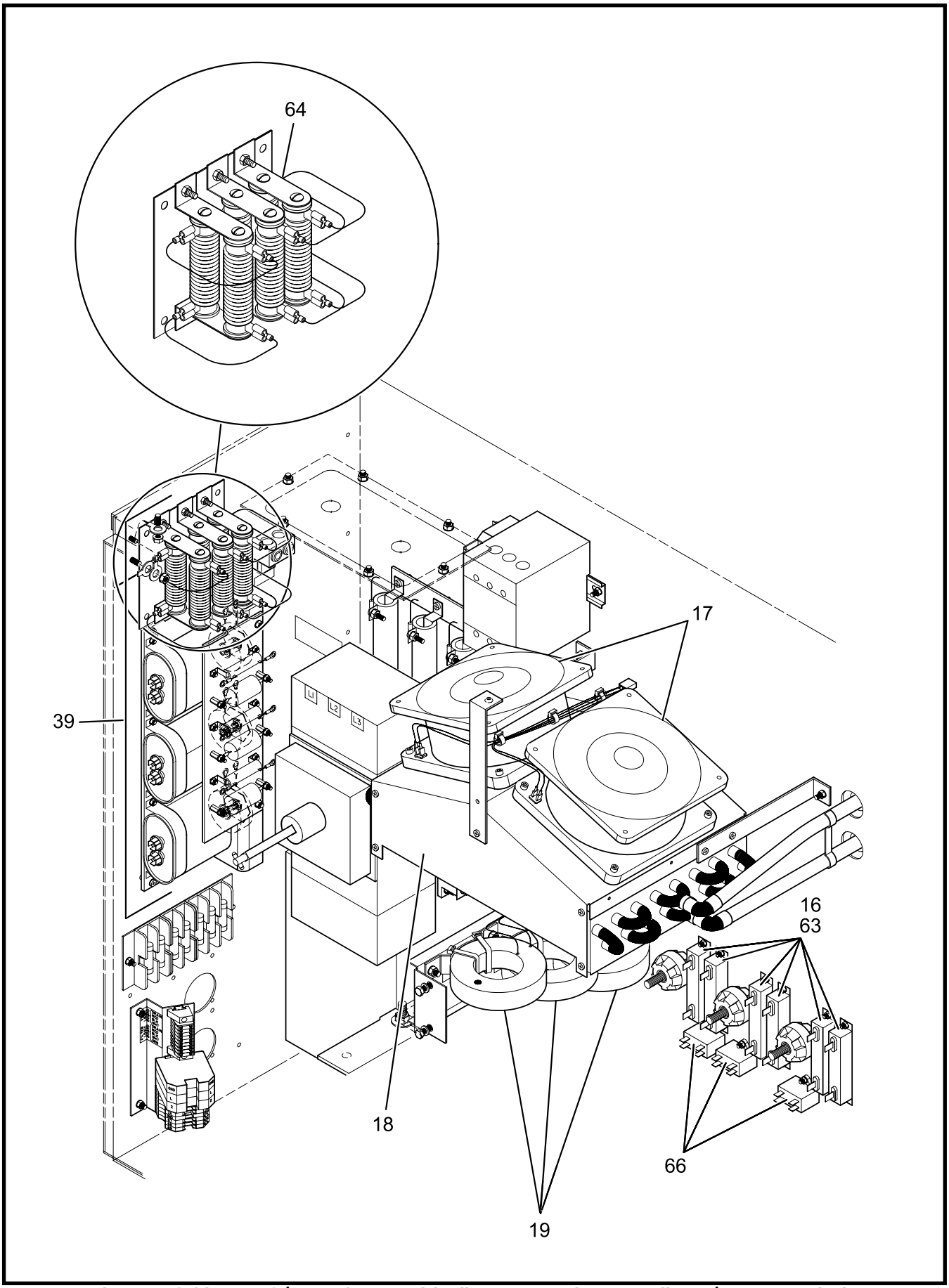

Figure 3. Cabinet, Left/Front Center with Filter Trap Resistor Detail, 305/254 HP, Typical.

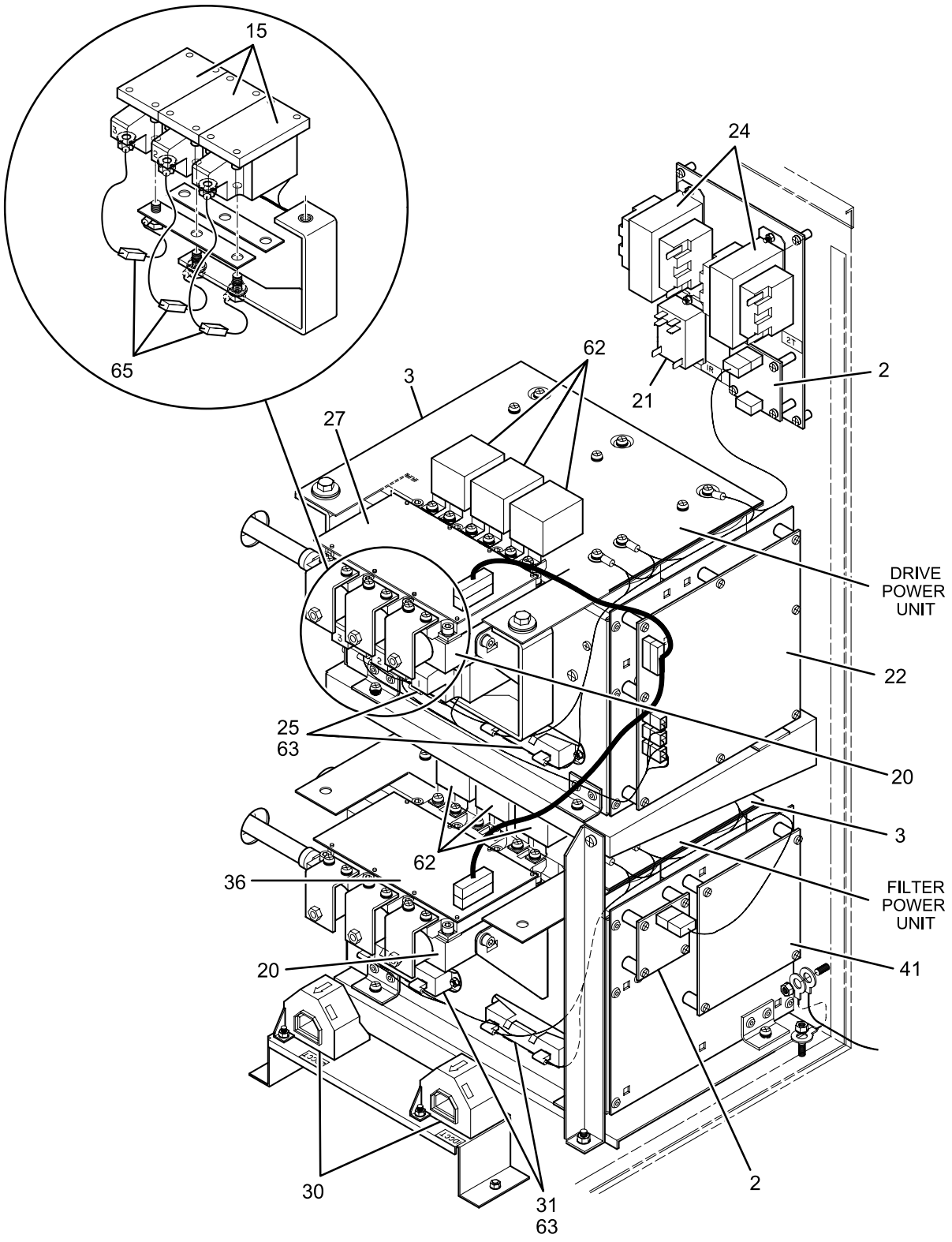

Figure 4. Cabinet, Right/Front Side with Detail, 305/254 HP, Typical.

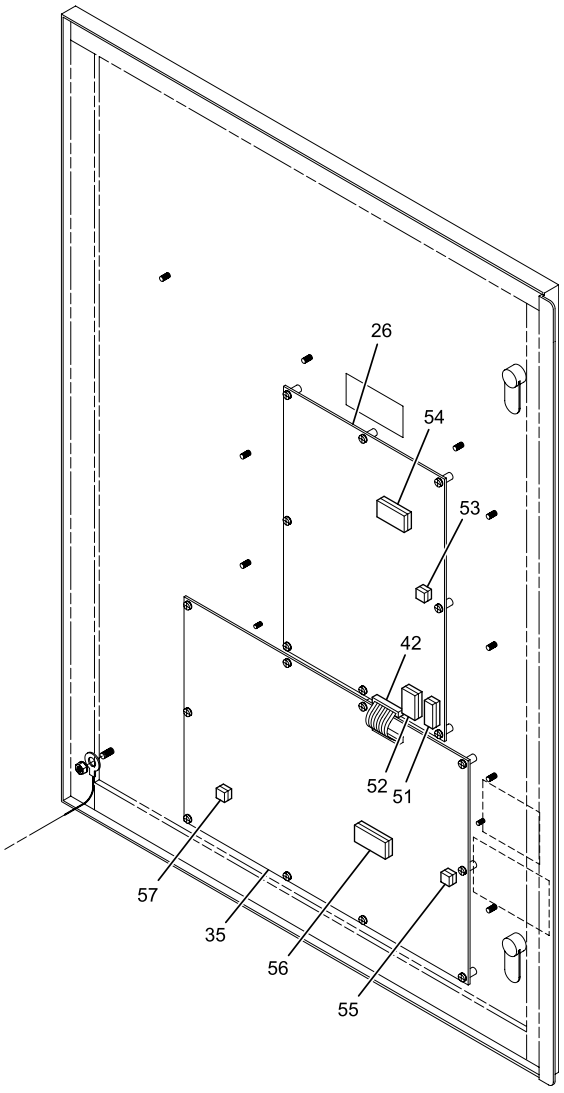

Figure 5. Door, Inside Right, 305/254 HP & 503/362 HP, Typical.

Units are located above the drive output terminals on the back of the enclosure.

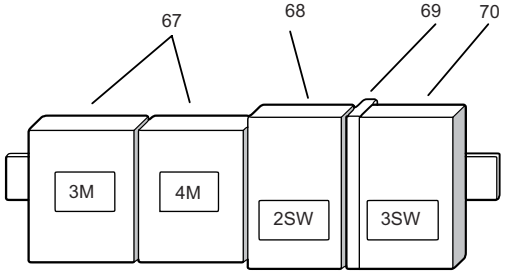

Figure 6a. 305/254 HP.

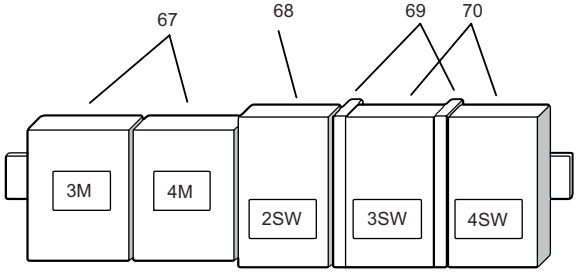

Figure 6b. 437/362 HP.

Figure 6. Oil Pump & Blower Motor - Starting Contactors, Overloads & Auxiliary Contact.

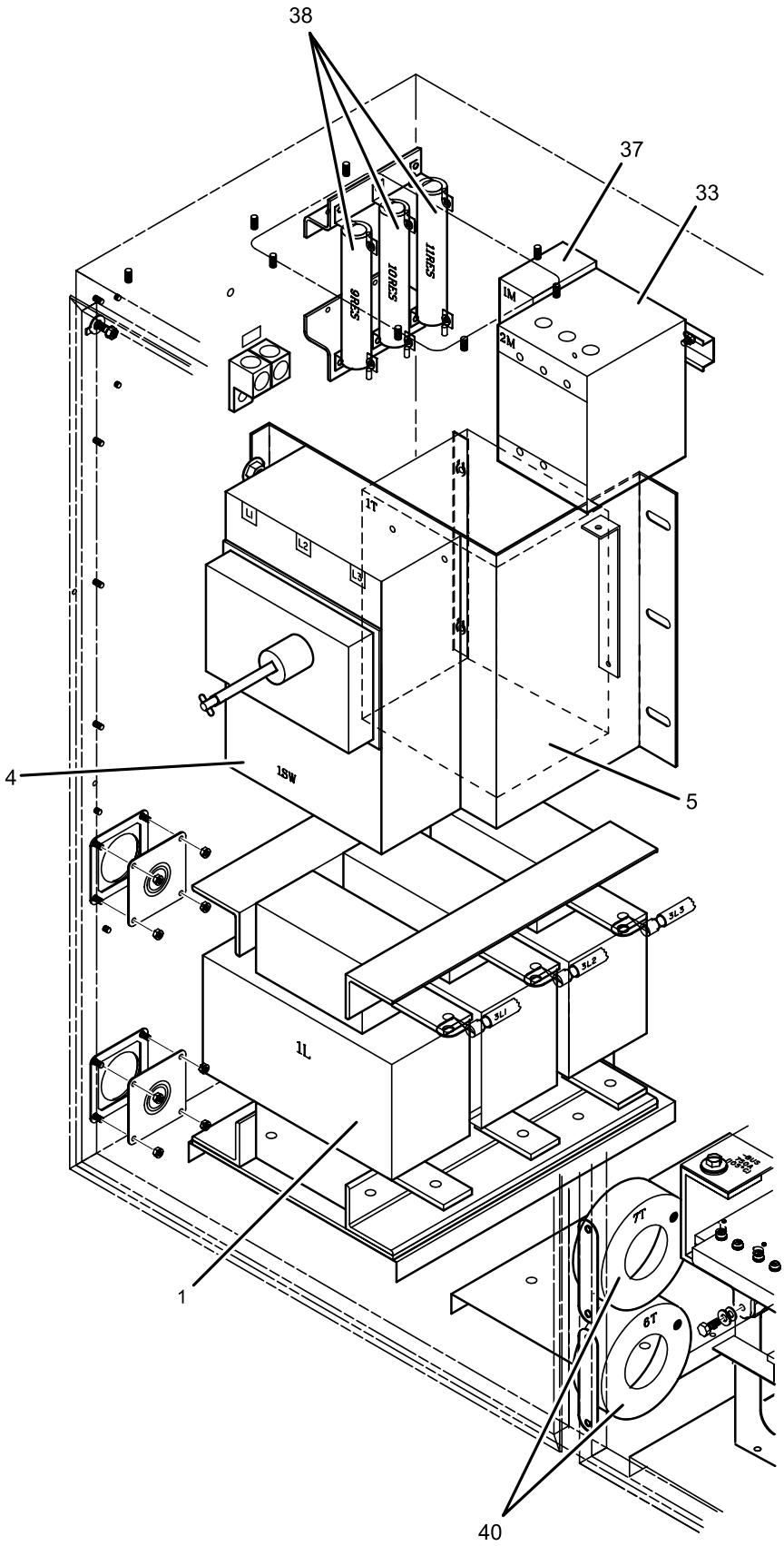

Figure 7. Cabinet, Left/Front Side, 437/362 HP, Typical.

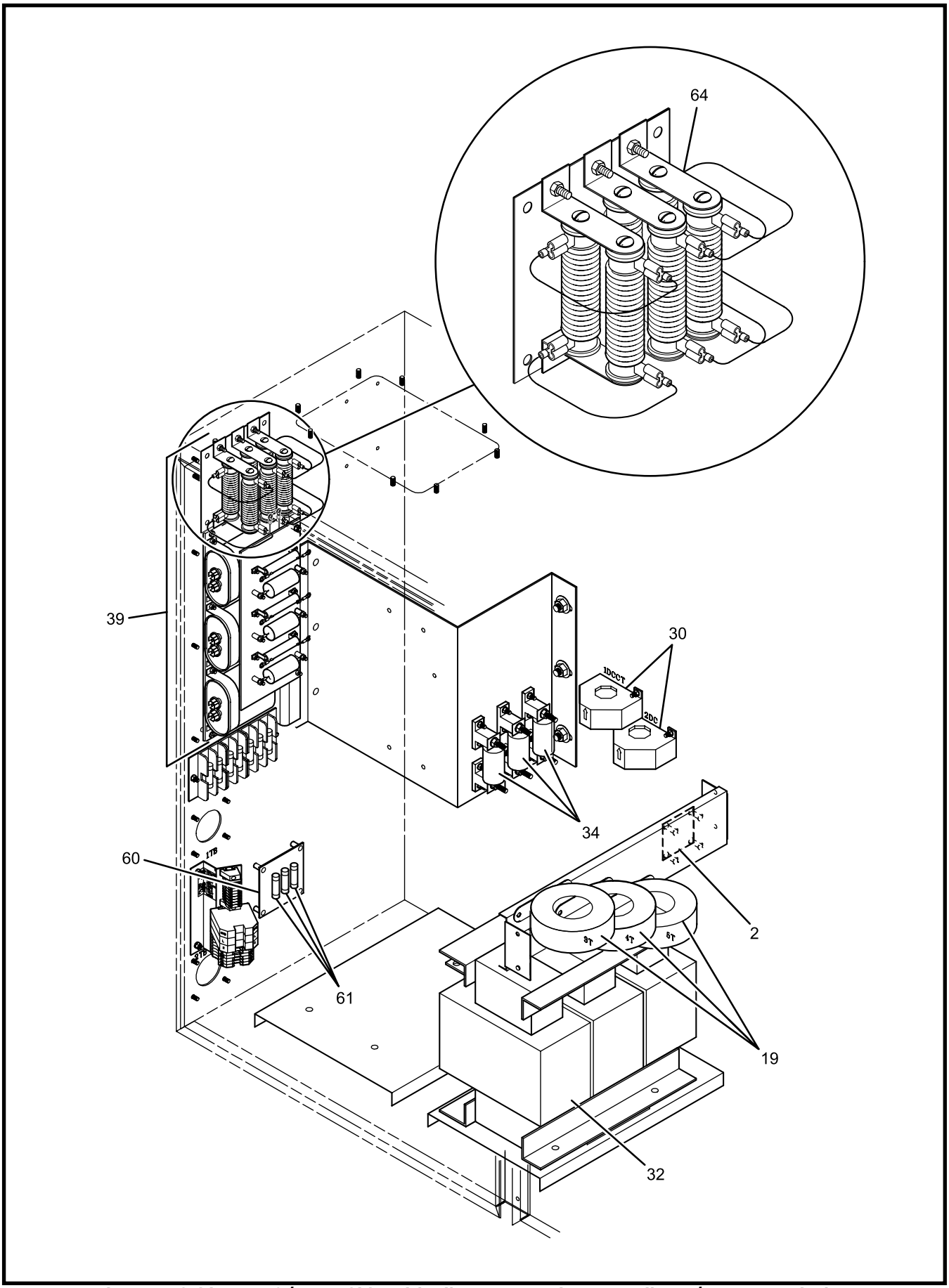

Figure 8. Cabinet, Left/Front Side with Filter Trap Resistor Detail, 437/362 HP, Typical.

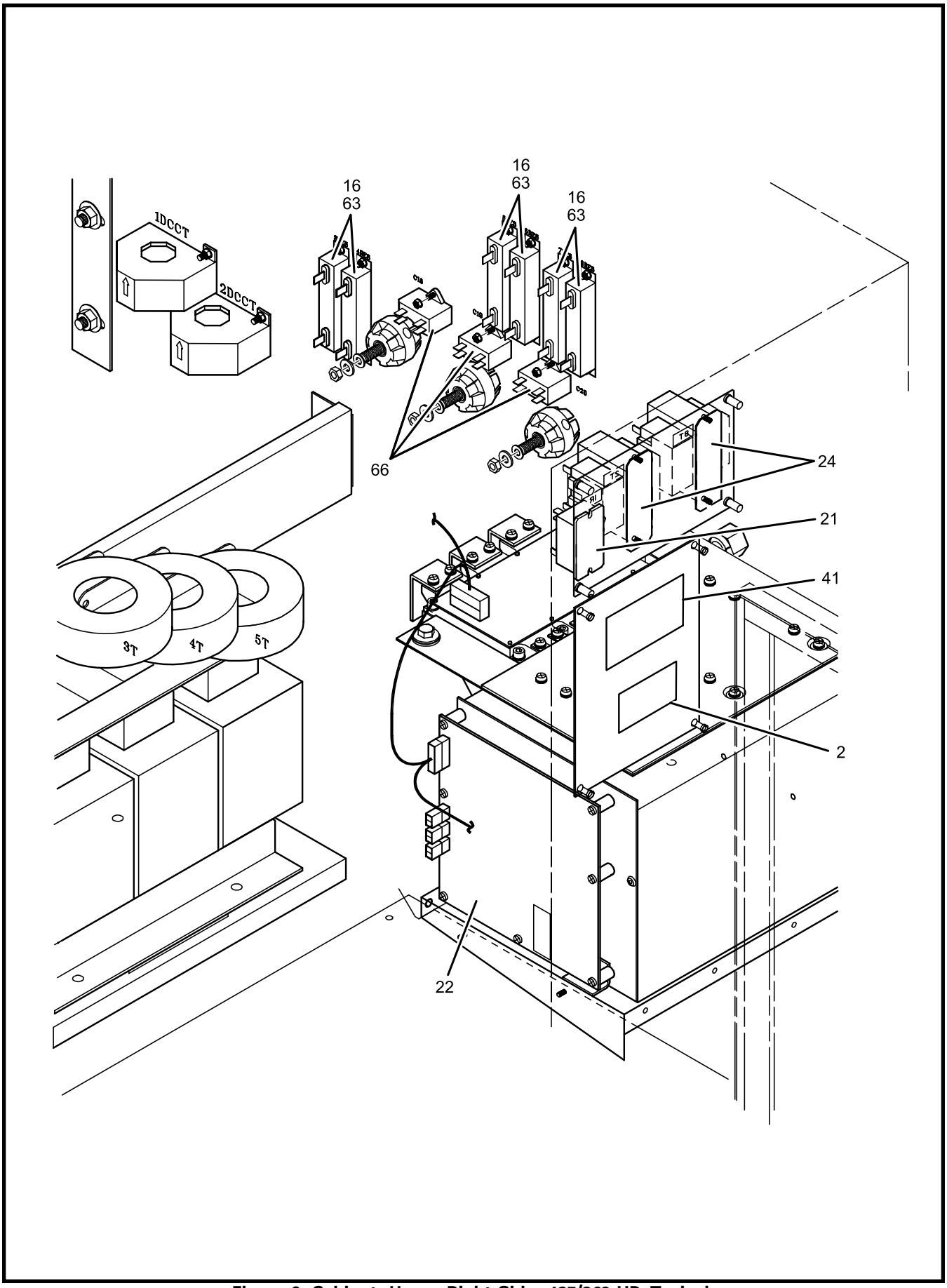

Figure 9. Cabinet, Upper Right Side, 437/362 HP, Typical.

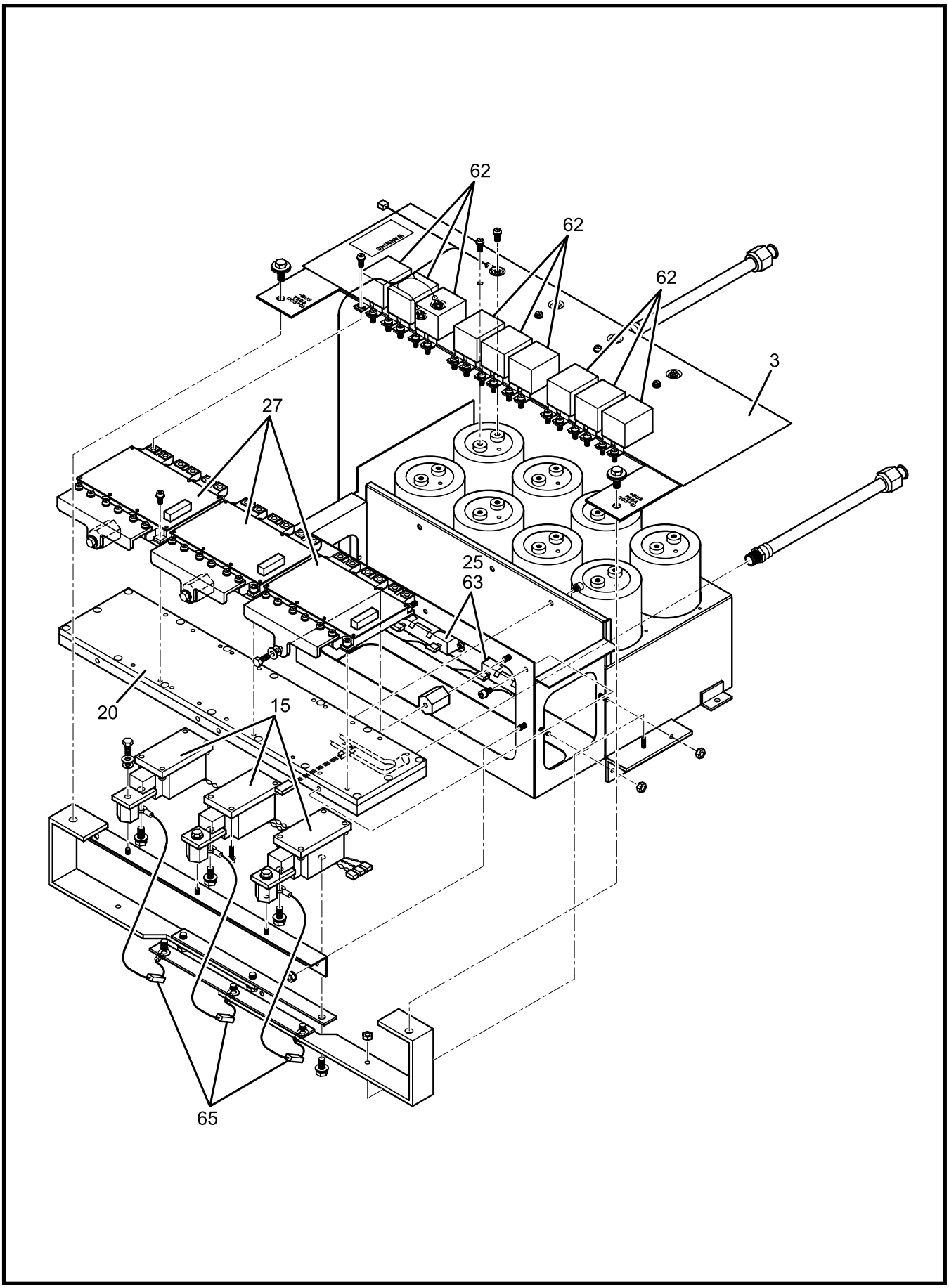

Figure 10. Vyper Power Unit Detail, 437/362 HP.

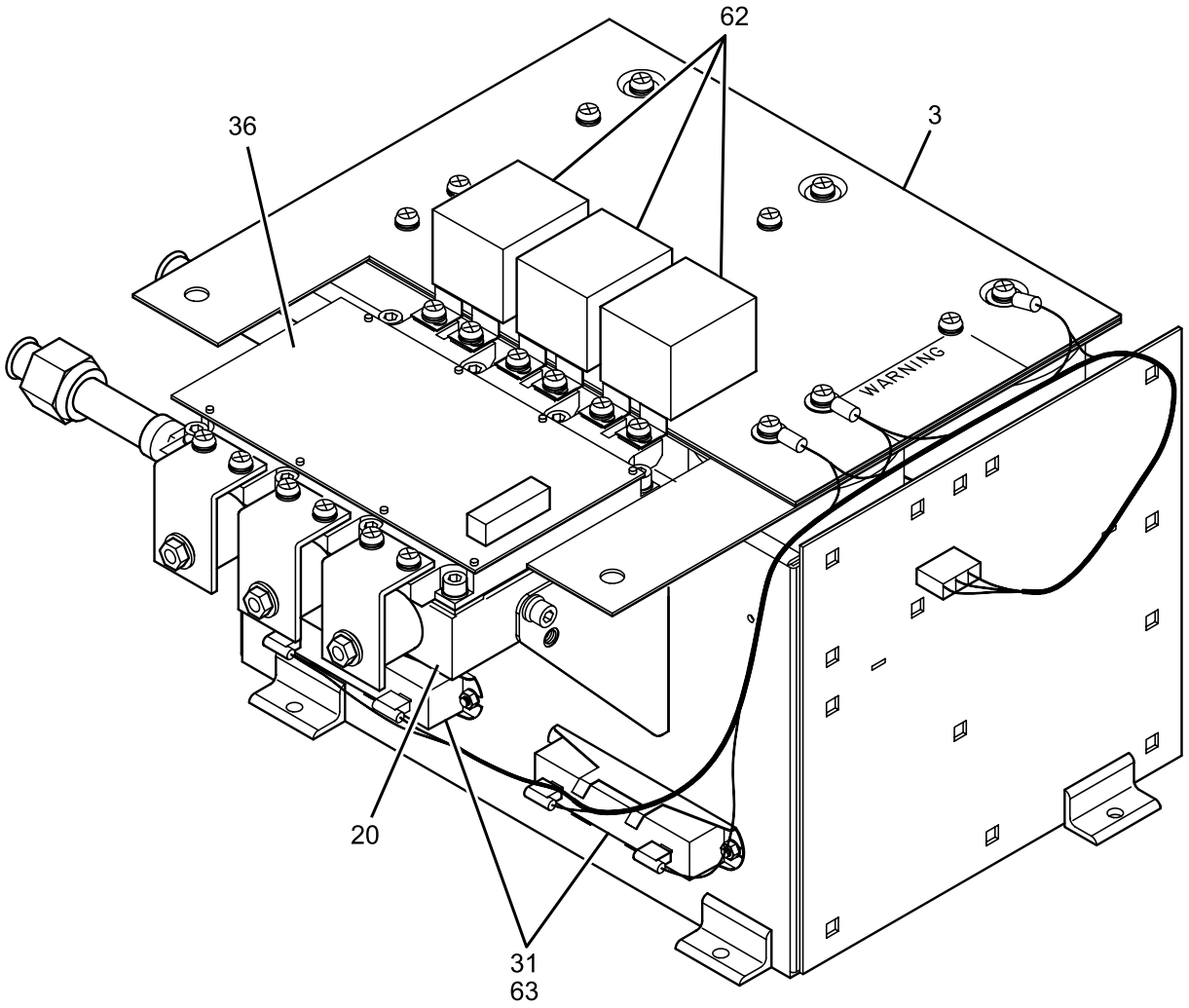

Figure 11. Vyper Harmonic Filter Power Unit Detail, 437/362 HP.

RECOMMENDED SPARE PARTS - 305/254 HP

NOTE: PLEASE PROVIDE FRICK® ORDER NUMBER, UNIT MODEL NUMBER, AND UNIT SERIAL NUMBER WHEN REQUESTING A QUOTATION OR PLACING AN ORDER. FAILURE TO INCLUDE THIS INFORMATION MAY DELAY PROCESSING OF YOUR REQUEST.

305/254 HP FRICK® VYPER™ VARIABLE SPEED DRIVE			
DESCRIPTION	QTY.	MODEL	ITEM NUMBER
Running Coolant (Inhibitor), 1 Gal.	2	ALL	013-02987-000
Relay, Control Fan / Pump	1	ALL	024-30441-000
Contactor, 3 Pole, 9 Amp (Oil Pump/Blower Motor)	2	ALL	024-30992-000
Fuse, 7 Amp Cartridge	3	305/254	025-25515-000
Fuse, 15 Amp Cartridge	2	305/254	025-25584-000
Fuse, 10 Amp Cartridge	1	305/254	025-27971-000
Fuse, 20 Amp Cartridge	1	305/254	025-28967-000
Capacitor, Snubber, VSD Output	3	ALL	025-35188-000
Capacitor, Bus Snubber	3	ALL	025-35972-000
Valve Actuator, Electronic	1	ALL	025-40386-000
Board, SCR Trigger, 60 Hz	1	ALL	031-02060-001
Board, SCR Trigger, 50 Hz	1	ALL	031-02060-002
Kit, VSD Power Module	1	305/254	371-03708-001

305/254 HP OPTIONAL HARMONIC FILTER			
DESCRIPTION	QTY.	MODEL	ITEM NUMBER
Fuse, Filter Input, 150 Amp, 500 Volt	3	305/254	025-32581-000
Capacitor, Bus Snubber	3	ALL	025-42247-000
Kit, Filter Trap Resistor (Trap Resistors Only)	1	ALL	371-02768-355
Kit, Filter Power Module (IGBT with Gate Driver Board)	1	305/254	371-03707-001

NOTE: This list is based on one unit. When stocking for more than one unit, the quantity should be adjusted to meet your individual requirements.

RECOMMENDED SPARE PARTS - 437/362 HP

NOTE: PLEASE PROVIDE FRICK® ORDER NUMBER, UNIT MODEL NUMBER, AND UNIT SERIAL NUMBER WHEN REQUESTING A QUOTATION OR PLACING AN ORDER. FAILURE TO INCLUDE THIS INFORMATION MAY DELAY PROCESSING OF YOUR REQUEST.

437/362 HP FRICK® VYPER™ VARIABLE SPEED DRIVE			
DESCRIPTION	QTY.	MODEL	ITEM NUMBER
Running Coolant (Inhibitor), 1 Gal.	2	ALL	013-02987-000
Relay, Control Fan / Pump	1	ALL	024-30441-000
Contactor, 3 Pole, 9 Amp (Oil Pump/Blower Motor)	2	ALL	024-30992-000
Transformer, 24 VAC, Class II	1	437/362	025-27911-000
Capacitor, Snubber, VSD Output	3	ALL	025-35188-000
Fuse, 10 Amp Cartridge	4	437/362	025-35905-000
Fuse, 15 Amp Cartridge	2	437/362	025-35907-000
Fuse, 20 Amp Cartridge	1	437/362	025-35908-000
Capacitor, Bus Snubber	3	ALL	025-35972-000
Fuses, Voltage Transient Board	1	437/362	025-38523-000
Valve Actuator, Electronic	1	ALL	025-40386-000
Board, SCR Trigger, 60 Hz	1	ALL	031-02060-001
Board, SCR Trigger, 50 Hz	1	ALL	031-02060-002
Kit, VSD Power Module (IGBT with Gate Driver Board)	1	437/362	371-04164-001

437/362 HP OPTIONAL HARMONIC FILTER			
DESCRIPTION	QTY.	MODEL	ITEM NUMBER
Fuse, Filter Input	3	437/362	025-30992-000
Capacitor, Bus Snubber	3	ALL	025-42247-000
Kit, Filter Trap Resistor (Trap Resistors Only)	1	ALL	371-02768-355
Kit, Filter Power Module (IGBT with Gate Driver Board)	1	437/362	371-04165-001

NOTE: This list is based on one unit. When stocking for more than one unit, the quantity should be adjusted to meet your individual requirements.

FRICK® VYPER™ VARIABLE SPEED DRIVE
NUMERICAL PARTS LIST

PART NUMBER	FIG. & INDEX NO.
024-30441-000	9–21
024-30441-000	4–21
024-30984-000	1–33
024-30985-000	7–37
024-30985-000	1–37
024-30991-000	6a–68
024-30991-000	6b–68
024-30992-000	6a–67
024-30992-000	6b–67
024-33166-000	6a–70
024-33166-000	6b–70
024-33176-000	6a–69
024-33176-000	6b–69
024-34028-000	7–33
024-35433-000	7–33
024-35434-000	1–33
025-21173-003	8–19
025-25515-000	1–11
025-25584-000	1–13
025-27911-000	9–24
025-27911-000	4–24
025-27971-000	1–12
025-28967-000	1–14
025-30992-000	8–34
025-30994-000	8–30
025-31499-000	1–5
025-31499-000	7–5
025-32502-000	1–38
025-32557-000	3–17
025-32581-000	2–34
025-32582-000	4–30
025-32983-000	1–5
025-32983-000	7–5
025-34185-000	1–10
025-35157-000	10–25
025-35157-000	4–25
025-35172-000	1–9
025-35177-000	2–32
025-35188-000	9–66
025-35188-000	3–66
025-35905-000	1–11
025-35905-000	1–12
025-35907-000	1–13
025-35908-000	1–14
025-35915-000	1–10
025-35953-000	3–16
025-35953-000	9–16
025-35955-000	4–31
025-35955-000	11–31
025-35972-000	4–62
025-35972-000	10–62
025-38135-000	8–32
025-38196-000	1–9
025-38197-000	7–38
025-38523-000	8–61
025-41692-000	2–1
025-41693-000	7–1
025-42247-000	4–62
025-42247-000	11–62
026-37908-000	3–18
026-40672-000	3–18
028-15299-000	9–63
028-15299-000	10–63
028-15299-000	11–63
028-15299-000	3–63
028-15299-000	4–63
031-01624-000	4–2
031-01624-000	9–2
031-01624-000	4–2
031-01633-006	5–56
031-01633-007	5–56
031-01658-000	5–42
031-01658-000	5–42
031-02022-000	9–41
031-02022-000	4–41
031-02060-001	9–22
031-02060-001	4–22
031-02060-002	4–22
031-02060-002	9–22
031-02453-000	8–60
031-02933-003	5–57
031-02933-003	5–57
071-02769-309	11–20
071-02769-309	4–20
071-03787-309	10–20
224-30987-000	2–4
224-34025-000	7–4
224-35428-000	2–4
331-02506-604	5–26
331-02556-001	4–65
331-02556-001	10–65
331-02932-631	5–35
331-02932-642	5–35
371-02768-355	3–64
371-02768-355	8–64
371-03707-001	4–36
371-03708-001	4–27
371-03709-001	4–15
371-03710-001	4–3
371-03710-001	4–3
371-03710-001	11–3
371-03711-001	3–39
371-03788-349	8–39
371-04162-001	10–15
371-04163-001	10–3
371-04164-001	10–27
371-04165-001	11–36
371-05143-001	4–20
531-01660-001	7–40
531-01672-001	1–40
531-01672-001	3–19

Form 100.200-SPL (2014-03)
Supersedes: 100.200-SPL (2014-01)
Subject to change without notice
Published in USA - PDF
© 2014 Johnson Controls Inc. - ALL RIGHTS RESERVED

JOHNSON CONTROLS
100 CV Avenue
Waynesboro, PA USA 17268-1206
Phone: 717-762-2121 • FAX: 717-762-8624
www.jci.com/frick